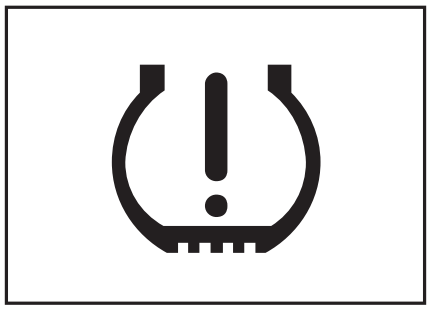
ACURA ServiceNews November 2007

Helping you fix it right the *first* time - *every* time

Inflating Tires for Low Tire Pressure Indication *Is Not* a Warranty Repair

Currently Applies To: Acura models with TPMS

Throughout this year, we've run a handful of articles telling you about the low tire pressure indicator in Acura vehicles with TPMS. And in each of those articles, we've hammered home the point that this indicator is like a "low fuel indicator" for the tires; its sole purpose is to warn you that one or more of the tires is low on air. We've also stressed that any repairs claimed for low tire pressure or normal tire pressure loss **is not** covered by Acura warranty unless the cause is traced to a manufacturer defect. Yet we keep seeing warranty claims for inflating the tires just to turn off that little indicator.



According to NHTSA regulations, the low tire pressure indicator **must** come on when the tire pressure is **25 percent below** the listed recommended cold inflation pressure. To guard against tolerance variations, the low tire pressure indicator in Acura vehicles with TPMS is set to come on when the tire pressure drops to around **20 percent**. All Acura O/Ms recommend that the tire pressures be checked and set at least **once per month**. And they should be checked **cold**, which means that the vehicle has been sitting for at least **3 hours** or driven for less than **1 mile**.

All tires—even those in good condition—lose tire pressure naturally for a number of reasons, but mainly because they're porous. It's common to lose up to **1.5 psi per month**. Secondly, it's a scientific fact that tire pressure drops with a drop in temperature. You can count on a loss of **1 psi** for every **10 degrees** of temperature drop. Here's what can typically happen:

> It's August 1, and the outside temperature is a balmy 80°F. The vehicle owner checks and sets his or her tire pressures to 32 psi—just like it says on the driver's doorjamb sticker and in the O/M. We fast forward to November 1, and the outside temperature is now a nippy 50°F. The owner checks the tire pressures, but now they're reading only 25 psi, and on top of that, the low tire pressure indicator in the dashboard is on and the TPMS control unit has set a low tire pressure DTC.

It's really the vehicle owner's responsibility to check and set the tire pressures; otherwise, that low tire pressure indicator is going to be coming on. And in cold weather . . . that could happen a lot. If you get a vehicle in your shop because the low tire pressure indicator is on or has been intermittently coming on, before you start any sort of troubleshooting, remember what that low tire pressure indicator is telling you. It's **not** saying there's a problem with the TPMS, so hold off on heavy troubleshooting.

To make things right, first check the tire pressures. If they're lower than the recommended cold inflation pressures, fill the tires to their recommended pressures. If the low tire pressure indicator stays on after you've done that, drive the vehicle **over 30 mph** for about **1 minute**—the indicator should go out. If it goes out, you're done with this repair. If it stays on—or you suspect there's a leak—then it's high time to start troubleshooting. And although one or more of the low tire pressure TPMS DTCs (11, 13, 15, or 17) will have been set in the TPMS control unit, don't bother clearing them—they just stay in memory.

So here's the bottom line: The low tire pressure indicator is like a "low fuel indicator" for the tires. Normal tire pressure loss **is not** covered by Acura warranty, unless it's traced to a manufacturer defect. So that means adding air to the tires just to turn off the indicator **is not** a warranty repair. Think of it as just a maintenance thing—it's really no different than filling up the fuel tank when the low fuel indicator comes on.

Window Film Can Block Electronic Device Signals

Many aftermarket high-performance metallic and ceramic automotive window films can actually block signals associated with common electronic devices such as cell phones, a GPS antenna for a navigation system, or keyless remotes. They can also create audio reception issues and even interfere with a tire pressure monitoring system.

If you're working on an Acura vehicle for a keyless remote or a TPMS problem—and you suspect that window film is the culprit—here's a tip: Try lowering the windows all the way down. If the problem goes away, the window film is blocking the signal.

NOTE: This tip **won't** work for reception problems associated with the audio unit (AM, FM, and XM) or the GPS antenna. For those problems, you need to find out what type of window film was applied.

Blue Arrows Mean One-Way Traffic

Currently Applies To: ’08 MDXs, RDXs, RLs, TLs, and TSXs

Here’s something to kick up your product knowledge: The navigation system has a new feature that displays blue arrows to indicate one-way traffic.

This feature works **only** when you select **ICON OPTIONS** from the icon bar, **Other icons** from the **Select category for icon settings:** screen, and **ONE WAY (1/20 mile)** from the **Select other icons:** screen.

Male Voice Prompts Gone From ’08 Navi DVDs

Currently Applies To: ’05–08 MDXs, ’07–08 RDXs, ’05–08 RLs, ’07–08 TLs, and ’06–08 TSXs

Here’s something you need to know about: To make room for more points of interest and other features, we’ve removed all male voice prompts from current ’08 production navigation systems. This also applies to the **white** and **green** navigation system update DVDs that are available from the Honda Navigation Disc Fulfillment Center, so it affects owners of older vehicles who want to upgrade their DVDs.

As a result, the navigation system user’s manual in some early production ’08 vehicles may show the **SETUP** screens that were available to change the voice prompt from female to male. Future releases of those manuals will be revised to eliminate that option.

And if that’s not confusing enough, some early production ’08 vehicles may have come with a ’07 production navigation system DVD, which includes those now-absent male voice prompts. If the vehicle also came with a 2nd release navigation system user’s manual, that manual won’t match the DVD since it mentions nothing about those prompts.

SRS Indicator On With SRS DTC 81-79 After Body Work

Currently Applies To: ’03–08 MDXs, ’07–08 RDXs, ’05–08 RLs, ’05–08 TLs, and ’06–08 TSXs

Got a vehicle that’s back from the body shop with the SRS indicator on and SRS DTC 81-79 (front passenger’s weight sensors drift check failure, front passenger’s weight sensors initial check failure)? Binding of the seat base, the seat weight sensors, or both can cause this problem. Here’s how you fix it:

1. Loosen all four front passenger’s seat base mounting bolts.
2. Grab a hold of the seat, and give it a good shaking. (This neutralizes the seat base.)
3. Tighten the seat base mounting bolts according to the applicable S/M.
4. Do the seat weight sensor calibration procedure in the applicable S/M using the measured weight.

   Handy Tip: A case (**6 gallons**) of Acura Precision Crafted Longlife Antifreeze/Coolant Type 2 makes an ideal measured weight for seat weight sensor calibration. It weighs about **58 pounds**. Nevertheless, **always** check the actual weight before entering it in the HDS.

No *Negative* A/F Sensor Output With Gen Scan Tools

Currently Applies To: ’07 MDXs and ’07 TLs

Here’s something you need to keep in mind when troubleshooting: If you’re using a generic scan tool to read the A/F sensor output, the tool **doesn’t** show you negative (rich) values. Whenever the output is negative, you’ll always see **0 mA**.

Interior Lights Stay On With Doors Closed

Currently Applies To: ’07 RDXs

A bad multiplex integrated control unit (MICU) in the driver’s under-dash fuse/relay box can cause the interior lights to stay on when:

- The front ceiling light switch is in the “door activated” (center position).
- All the doors are closed.
- The ignition switch is turned to LOCK (0).

When you slide the front ceiling light switch to the off position, the interior lights go out. To fix this problem, replace the MICU.

Excessive Steering Wheel Shimmy or Chassis Vibration - Part 2 of 5

Last month, we introduced the first article in a five-part series that will look at the whole issue of steering wheel shimmy and chassis vibration and what it takes to fix the problem. In that article, we gave you a step-by-step procedure to test-drive your service client's vehicle. The final step of that procedure was to test-drive a known-good vehicle and compare your two test-drives. If your client's vehicle was similar or better than the known-good, you were told the vibration was a normal characteristic of the vehicle. This article deals with the situation where your client's vehicle was noticeably worse than the known-good. Before you can move ahead, you've got to interpret the vibration.

Cold Start Vibrations

Temperature/Time-Related Flat Spots

When you park a vehicle overnight in cold temperatures or park it for a few days, weeks, or months, the tires can form what are commonly called flat spots. These flat spots can cause a noticeable vibration when traveling at low speeds that goes away after just a few miles of driving.

Due to their construction and materials, many heavy-duty and high-performance tires have a memory— meaning they continue to remember the position in which they were last parked when you begin driving again. Unfortunately, that memory can become a problem when the tires go through wide swings in ambient temperature, or they've been sitting overnight in cold temperatures or for a long period of time.

When a tire is suspended in the air (there's no load on it), each of the sidewall cords has the same tension. As the tire rolls on the ground, each of those sidewall cords goes from a relaxed state to a loaded state for every rotation. And this happens about **800 times every mile**. This constant deflection generates heat, which makes the tires more flexible. But once you park the vehicle and those tires start to cool, the spot that's touching the ground (the tire's footprint) flattens and the cords around that spot relax as the tire presses down from the weight of the vehicle. The cords at the top of the tire, however, are held at their maximum tension. If it's cold overnight or you don't drive the vehicle for a while, the tire will remember its position, forming a flat spot. After a cold start, the axle rises and falls in response to that flat spot, causing a noticeable vibration. But as tire warms up, it softens, and normally rounds out. With the axle now riding steady, the vibration goes away.

A flat spot can be just temporary, where the tire rounds out after it warms up. But sometimes it can also be permanent in which the tire's memory effectively destroys its ride quality. A flat spot's severity often depends on the tire's size, its construction, the load it's under, the ambient temperature, and how long it's been sitting and at what temperature. If the tire has a temporary flat spot, **don't** replace the tire just because of it. Of course, if that flat spot is permanent, the only real cure is tire replacement.

Abrasion-Related Flat Spots

Tires can also develop flat spots if the brakes lock up causing them to skid. This is more likely to happen in vehicles without ABS or VSA or if you misuse the parking brake. Since these flat spots are obviously permanent, the only real cure is tire replacement.

Constant Vibrations

A badly mounted tire bead can cause vibrations that you can feel right through the seat, the floor, and the steering column while driving. The steering wheel can also shimmy. In rare cases, more than one tire can be the culprit. If the tire looks new—and you suspect a badly mounted bead—you need to measure the tire/rim runout if you've got access to a Hunter GSP 9700 wheel balancer. If you don't have access to one, you need to mount a known-good stock tire and rim and test-drive your customer's vehicle under the same conditions that are listed on your RO. We'll be discussing exactly how to do this in future articles of this series.

Intermittent Vibrations

Vibrations that you can feel while driving that come from tires, rims, hubs, and brakes happen when you're going **50 mph or faster**. And they tend to get stronger when you reach about **70 mph**.

NOTE: If you feel the vibration **only** when you're driving between **45 and 55 mph**, this article **doesn't** apply. You may be dealing with a vibration from another source.

Intermittent wheel vibration normally **isn't** affected by these factors:

- Engine speed
- Gear selection (this includes Neutral)
- Engine load
- Hill climbing
- Acceleration
- Deceleration

But if it **is** affected by one these factors . . . then stop right here. You may be dealing with a vibration from another source (exhaust, engine, A/C, etc.).

(cont'd)

Excessive Steering Wheel Shimmy . . . (cont'd)

Often, the wheel vibration is intermittent because of tire phase matching.

Steering Wheel Shimmy

Steering wheel shimmy can be caused by static tire imbalance. Static balance is simply the wheel's weight distribution while it's **at rest**. When one part of the wheel (the tire, rim, hub, or brake disc) is heavier by **more than 7 grams**, you can feel this as a shimmy. If one wheel is out of balance, the shimmy will be constant. If two wheels are out of balance, it will be intermittent because of phase matching.

You may notice that the vibration tends to come and go more often when driving on curved roads. This is a good indication of phase matching. In the next issue of *ServiceNews*, we'll discuss phase matching in a lot more detail.

Security System Sounds by Itself

Currently Applies To: '07–08 MDXs, '07–08 RDXs, '05–08 RLs, '04–08 TLs, and '04–08 TSXs

When the security system sounds, the B-CAN stores the last input (security breach history data) that set off the alarm. If you've got a vehicle in your shop because the security system sounded by itself for no apparent reason, you can use the HDS to access that stored history data to help you find and fix the problem. Once you've found and fixed the problem, you'll then want to use the HDS to clear that history data before you wrap things up. Here's how you do it:

To access the last security breach history data:

1. Connect the HDS to the 16P DLC.
2. Turn the ignition switch to ON (II).
3. From the **System Selection Menu**, select **BODY ELECTRICAL**.
4. From the **Mode Menu**, select **Security**.
5. From the **Security Menu**, select **HISTORY DATA**.
6. Scroll down and select the last entry posted.

To clear the last security breach history data after you've found and fixed the problem:

1. Return to the **Security Menu**, and select **HISTORY CLEAR**.
2. Turn the ignition switch to LOCK (0).
3. Disconnect the HDS.

Accessory Trunk Spoiler Is Loose or Lifting Up

Currently Applies To: '04–08 TLs

If you get a vehicle in your shop with an accessory trunk spoiler that's loose, that's lifting up on either end or bowing in the middle, or is doing both, check to see if the flange nuts are securely in place and tighten them if needed. If the trunk spoiler is still loose or lifting up, chances are it wasn't installed properly and the holes for the studs are misaligned.

To fix the problem, you've got to replace the spoiler, since the adhesive from the original one is probably no good. For a quality job, make sure you follow the installation instructions carefully. Clean the trunk lid, then use the two templates A and B from the kit to see if the original holes in the trunk are properly aligned. If they are, go ahead and mount the replacement spoiler and torque the flange nuts to spec. If they aren't properly aligned, use a round file to open up the holes until they are, then apply paint to the holes to prevent rust. When the paint is dry, mount the replacement spoiler and torque the flange nuts to spec.

A Troubleshooting Guide to HandsFreeLink - Part 1 of 5

Currently Applies To: All '06–08 vehicles with HandsFreeLink

One of the cool features that reminds us the future is now is Acura's HandsFreeLink® (HFL) system. With a compatible Bluetooth® cell phone, you can receive and place calls while driving and never have to take your hands off the steering wheel.

As with any new, cutting-edge technology, though . . . it comes with a price. The HFL system can be a tough challenge to troubleshoot and repair. HFL system problems are complicated by the fact that it's only one part of a much bigger system. You're not just dealing with the HFL system in the vehicle, but also your service client's cell phone, the navigation system (if the vehicle has it), and even how your client works the HFL system (some problems simply stem from "pilot error"). And something else you need to keep in mind: The HFL system uses the cell phone to provide hands-free operation; it does nothing to kick up performance. Any problems with static, poor signal strength, poor sound quality, or dropped calls are the cell phone's or their wireless carrier's doings and **not** something you can fix by tinkering with the HFL system.

(cont'd)

A Troubleshooting Guide . . . (cont'd)

This article is the first of a five-part series of articles to help you understand the HFL system and to troubleshoot problems tied to it. We begin the series with a discussion on how to check a cell phone's compatibility with the HFL system. In future articles, we'll show you how to troubleshoot problems with pairing, problems with dropped calls, and problems with receiving and placing calls. And finally—as an extra bonus—we're going to toss in a handy glossary of terms that deal specifically with the HFL system.

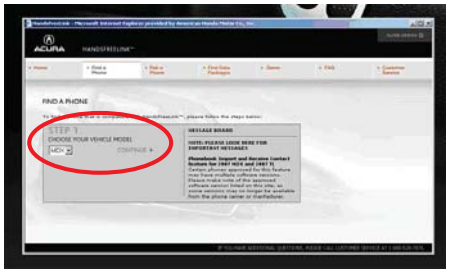
Checking Cell Phone Compatibility

The HFL system works **only** with approved Bluetooth-enabled cell phones with a hands-free profile. The most important step in troubleshooting an HFL problem is to identify your client's cell phone model, the software version it's loaded with, and your client's wireless carrier. Not all cell phones with Bluetooth and a hands-free profile are compatible with the HFL system. If you're not sure that the cell phone you're working with is compatible with the HFL system, call HandsFreeLink Consumer Support at **888-528-7876** and a representative will answer your questions. You can also visit their website at *www.acura.com/handsfreelink*.

Here's the best way to make sure that the phone you're working with is compatible:

1. Log onto *www.acura.com/handsfreelink.*
2. Click on **Find a Phone**.

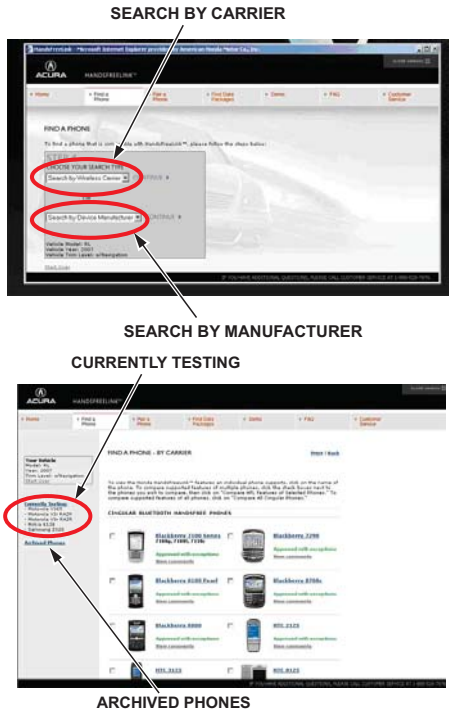
3. Choose the vehicle model that you're working on, then click on **CONTINUE**.



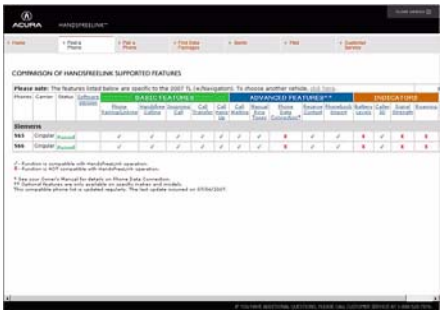
4. Choose the vehicle model year, then click on **CONTINUE**.

5. Choose the vehicle trim level, then click on **CONTINUE**.

6. Choose your search type (you can search by either carrier or device manufacturer), then click on **CONTINUE**. You'll see a list of all current model phones that have been tested with the Acura HFL system. If you don't see the phone that you're working with on this list, look under the **Currently Testing** list and the **Archived Phones** list. If you don't see your phone listed anywhere on the website, consider it to be incompatible with the HFL system.



7. If you see the phone model that your client is using, click on it. You'll see the HFL supported features for that phone.



NOTES:

- The approved, archived, and currently testing phone model lists are always changing, so make sure you check them whenever you've got a vehicle with an HFL issue.
- New phones are added as they're approved.
- A phone can be removed from the approved list if a software bug is discovered that makes that phone incompatible. The phone can be added back to the approved list if the device manufacturer fixes the bug.
- If the software bug is fixed, a new software version is created and may be listed in the Supported Features section of the phone.
- The Acura website now includes the software versions that are tested and approved. When software versions are listed, you need to know which version is loaded on the phone that you're working with to help you troubleshoot your client's complaint.

If you can't get onto the Acura website, call HandsFreeLink Consumer Support at **888-528-7876** for further help. It's open **Monday thru Friday** from **6:00 a.m. to 6:00 p.m. CST**; **Saturday** from **7:00 a.m. to 6:00 p.m. CST**; and **Sunday** from **8:00 a.m. to 6:00 p.m. CST**.

In the next issue of *ServiceNews*, we'll discuss what to do when you have pairing issues.

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